Line 15, change "190-195)," to --189-194),--;

Line 16, change "300-302)," to --298-300),--;

Line 17, change "309-311)," to --307-309),--; and change "172-177)," to --170-175),--; and

Line 19, change "303-308)." to --301-306).--.

IN THE CLAIMS:

Please delete Claims 1-32, as originally filed in International Application No. PCT/NO99/00143, without prejudice to or disclaimer of the subject matter recited in those claims.

Please add Claims 33-71 as follows:

--33. A peptide that:

a) is at least 8 amino acid residues long and is a fragment of a mutant protein arising from a frameshift mutation in a gene of a cancer cell having a protein sequence that consists of a mutant part and a normal part;

A1 b) includes at least one amino acid residue of the mutant part of the protein sequence;

c) comprises 0-10 amino acid residues from the carboxyl terminus of the normal part of the protein sequence preceding the amino terminus of the mutant part of the protein

sequence and may further extend to the carboxyl terminus of the mutant part of the protein sequence, as determined by a new stop codon generated by the frameshift mutation; and

d) induces T cell responses, either in its full length form or after processing by an antigen presenting cell;

wherein the mutant part of the protein sequence has a sequence chosen from sequence identity nos. 1-459.

A1 CONT

34. The peptide according to claim 33, wherein the peptide arises from a frameshift mutation in the BAX gene.

SUB B1

35. The peptide according to claim 33, wherein the peptide arises from a frameshift mutation in the TGF-β-RII gene.

36. The peptide according to claim 33, wherein the peptide arises from a frameshift mutation in the Human FADD/homologous ICE/CED-3-like protease gene.

37. The peptide according to claim 33, wherein the peptide arises from a frameshift mutation in the Human putative mismatch repair/binding protein (hMSH3) gene.

38. The peptide according to claim 33, wherein the peptide arises from a frameshift mutation in the Human neurofibromin (NF-1) gene.

39. The peptide according to claim 33, wherein the peptide arises from a frameshift mutation in the Human hMSH6 gene.

A1 Cont

40. The peptide according to claim 33, wherein the peptide arises from a frameshift mutation in the Human transforming growth factor-beta induced gene product (BIGH3).

41. The peptide according to claim 33, wherein the peptide arises from a frameshift mutation in the Human protein-tyrosine kinase (JAK1) gene.

42. The peptide according to claim 33, wherein the peptide arises from a frameshift mutation in the Human protein-tyrosine kinase (JAK3) gene.

43. The peptide according to claim 33, wherein the peptide arises from a frameshift mutation in the Human retinoblastoma related protein (p107) gene.

44. The peptide according to claim 33, wherein the peptide arises from a frameshift mutation in the Human malignant melanoma metastasis-suppressor (hKiSS-1) gene.

45. The peptide according to claim 33, wherein the peptide arises from a frameshift mutation in the Human cysteine protease (ICE rel-III) gene.

46. The peptide according to claim 33, wherein the peptide arises from a frameshift mutation in the Human BRCA1-associated RING domain protein (BARD1) gene.

47. The peptide according to claim 33, wherein the peptide arises from a frameshift mutation in the Human DPC4 gene.

48. The peptide according to claim 33, wherein the peptide is 8-25 amino acid residues long.

49. A pharmaceutical composition comprising a peptide according to any of claims 33-48, and a pharmaceutically acceptable carrier or diluent.

50. A cancer vaccine comprising a peptide according to any of claims 33-48, and a pharmaceutically acceptable carrier or diluent.

51. The use of a peptide according to claim 33, for the preparation of a pharmaceutical composition for the treatment or prophylaxis of cancer.

52. A method for vaccinating a human patient who is disposed to developing, or is afflicted with, cancer, comprising administering to the patient at least one peptide according to claim 33, one or more times, in an amount sufficient to induce specific T-cell immunity to the mutant protein or fragment thereof.

53. The method according to claim 52, wherein the amount of the peptide is in the range of 1 microgram (1 μg) to 1 gram (1 g) for each administration.

54. The method according to claim 53, wherein the amount of the peptide is in the range of 1 microgram (1 μg) to 1 milligram (1 mg) for each administration.

55. A method for treating a human patient afflicted with cancer comprising stimulating the patient *in vivo* or *ex vivo* with the peptide according to claim 33.

56. The method according to claim 55, wherein the amount of the peptide used is in the range of 1 microgram (1 μg) to 1 gram (1 g) for each administration.

57. The method according to claim 56, wherein the amount of the peptide used is in the range of 1 microgram (1 μg) to 1 milligram (1 mg) for each administration.

A1 Cont

58. A pharmaceutical composition comprising a combination of at least one peptide according to claim 33, and at least one peptide according to International Application No. PCT/NO92/00032.

59. An isolated DNA sequence encoding the peptide described in claim 33.

60. The isolated DNA sequence according to claim 59, wherein the DNA sequence encodes a fragment of a protein having a sequence selected from the group consisting of seq. id. nos. 1-

21, seq. id. no. 428, seq. id. no. 438, seq. id. nos. 456-458, and variants thereof.

61. The isolated DNA sequence according to claim 59, wherein the DNA sequence encodes a fragment of a protein having a sequence selected from the group consisting of seq. id. nos. 22-427, seq. id. nos. 429-437, seq. id. nos. 439-455, seq. id. no. 459, and variants thereof.

62. The use of a DNA sequence according to any of claims 59 or 60, for the preparation of a pharmaceutical composition for the treatment or prophylaxis of cancer.

A1 Cont

63. A method for treating a human patient who is disposed to developing, or is afflicted with, cancer, comprising stimulating the patient *in vivo* or *ex vivo* with the DNA sequence according to any of claims 59-61.

64. A vector comprising the DNA sequence of claim 59.

65. The vector according to claim 64, wherein the vector is a plasmid or a viral vector.

66. The vector according to claim 64, wherein the vector is selected from the group consisting of an *E. coli* plasmid and a Listeria vector.

67. The vector according to claim 65, wherein the viral vector is selected from the group consisting of an orthopox virus, a xanary virus, a capripox virus, a suipox virus, a vaccinia virus, a baculovirus, a human adenovirus, an SV40 virus and a bovine papilloma virus.

68. The use of the vector according to claim 64, for the preparation of a pharmaceutical composition for the treatment or prophylaxis of cancer.

A1 cont

69. A method of treating a human patient disposed to developing, or afflicted with, cancer, comprising stimulating the patient *in vivo* or *ex vivo* with a vector according to claim 64.

70. A method for vaccinating a human patient who is disposed to developing, or is afflicted with, cancer, comprising administering to the patient at least one peptide according to claims 34-48, one or more times, in an amount sufficient to